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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/941,459    09/30/97    MORIKAWA    T    05058/58201

WM31/0410

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EXAMINER

POKRZYWA, J

ART UNIT

PAPER NUMBER

2622

23

DATE MAILED:

04/10/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

NS

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	08/941,459	MORIKAWA, TAKESHI	
	Examiner	Art Unit	
	Joseph R. Pokrzywa	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-6, 13-16 and 23-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6, 13-16 and 23-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- |   |  |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Continued Prosecution Application*

1. The request filed on 1/29/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/941,459 is acceptable and a CPA has been established. An action on the CPA follows.

### *Response to Preliminary Amendment*

2. Applicant's preliminary amendment was received on 1/29/01, and has been entered and made of record. Currently, **claims 4 through 6, 13 through 16, and 23 through 35** are pending.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. **Claims 14 through 16** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. **Claim 14** recites the limitation "imaging forming device" in line 1. There is insufficient antecedent basis for this limitation in the claim, as claim 13 defines an "image forming apparatus".

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6. *Claim 15* recites the limitation "imaging forming device" in line 1. There is insufficient antecedent basis for this limitation in the claim, as claim 13 defines an "image forming apparatus".

7. *Claim 16* recites the limitation "imaging forming device" in line 1. There is insufficient antecedent basis for this limitation in the claim, as claim 13 defines an "image forming apparatus".

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 4, 6, 13, 14, 27 through 30, and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Ishiguro *et al.* (U.S. Patent Number Re. 34,460).

Regarding *claim 4*, Ishiguro discloses an image processing device (see Fig. 1) operable in a plurality of modes of operation (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of modes of operation (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column

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14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selecting an inoperable mode of operation of the plurality of modes of operation through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44).

Regarding *claim 6*, Ishiguro discloses the device discussed above in claim 4, and further teaches that the state decision controller determines a frame size of the frame of the image data (column 18, line 64 through column 19, line 1).

Regarding *claim 13*, Ishiguro discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a printer for reading the image data stored in the memory for each frame and for printing (column 20, lines 3 through 16), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of print modes (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selection of an inoperable print mode of the plurality of print

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modes through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44).

Regarding *claim 14*, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches of a finisher for stapling sheets printed by the printer (stapler 100 being part of sorter 40, see Figs. 1 and 2, column 7, lines 26 through 32, and column 11, lines 37 through 47), wherein the state decision controller determines whether the image data stored in the memory includes image data having a frame size different than a frame size of other image data stored in the memory (column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), and the selection prohibiting controller prohibits selecting a staple print mode through the operation panel when it is determined that the memory includes image data having a frame size different than a frame size of other image data stored in the memory (column 18, line 64 through column 19, line 7, whereby the finishing mode is prohibited, thereby prohibiting the staple mode), with the staple print mode being provided so that the finisher provides a staple processing (column 19, lines 39 through 61).

Regarding *claim 27*, Ishiguro discloses the device discussed above in claim 4, and further teaches of a display for displaying an operating state of the image processing device (see Figs. 16 and 18, panels 120 and 150, wherein panel 120 includes indicator 125, column 12, lines 41 through 55), and a display controller, responsive to the selection prohibiting controller, for displaying on the display an operable mode of operation of the plurality of modes of operation (column 16, lines 11 through 16).

Regarding *claim 28*, Ishiguro discloses an image processing device (see Fig. 1) operable in a plurality of modes of operation (see Fig. 18, column 12, line 37 through column 13, line 25)

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comprising a memory (RAM) for storing image data of a plurality of frames (column 18, line 64 through column 19, line 1), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), a controller (control circuit, seen in Fig. 19), responsive to the state decision controller, for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for determining an inoperable mode of operation of the plurality of modes of operation based on the result of the comparison (column 19, lines 2 through 7, wherein the finishing mode is determined to be impossible, with the alarm flag F3 being set to "1" and the finishing mode flag being set to "1"), and an operation panel, responsive to the selection prohibiting controller, for selecting any of the plurality of modes of operation (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), with the operation panel automatically prohibiting selecting the thus determined inoperable mode of operation (see Fig. 25c, steps S76 and S76a, column 14, lines 19 through 35, and column 16, lines 12 through 16).

Regarding *claim 29*, Ishiguro discloses the device discussed above in claim 28, and further teaches that the state of the frame of the image data determined by the state decision controller for each frame thereof is a frame size (column 18, line 64 through column 19, line 1).

Regarding *claim 30*, Ishiguro discloses the device discussed above in claim 30, and further teaches that the plurality of modes of operation include at least one of economy print

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mode, two-sided print mode, and staple print mode (column 19, lines 39 through 61, see Fig. 33, wherein the stapling processing is part of the finishing mode).

Regarding *claim 35*, Ishiguro discloses an image formation apparatus comprising a memory (RAM) for storing image data corresponding to a plurality of images (column 18, line 64 through column 19, line 1), a print portion for forming an image on a sheet (column 6, lines 49 through 61) from image data stored in the memory (column 14, lines 5 through 56, column 18, lines 64 through 66, and column 20, lines 3 through 16), a stapler (stapler 100, see Fig. 1) for stapling a plurality of printed sheets (column 11, lines 37 through 47), and a controller (control circuit, seen in Fig. 19) for which permits the stapler to operate when all of the plurality of printed sheets have images formed thereon from image data stored in the memory which are uniform in size and otherwise prohibiting the stapler from operating (column 18, line 64 through column 19, line 7, wherein the finishing mode is prohibited, with the finishing flag being reset to "0", thereby prohibiting the stapling operation from being performed).

10. **Claims 31, 33, and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Shinada *et al.* (U.S. Patent Number 5,008,709).

Regarding *claim 31*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a sensor (document sensor 37) for reading an image on an original (column 7, lines 8 through 48), a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data read by the sensor (column 18, lines 38 through 42, and column 40, lines 28 through 35), means (priority magnification select subroutine) for editing image data from image data stored in the memory (column 34, lines 30



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through 43), an image forming portion for using edited image data to print an image (magnified documents, column 40, lines 35 through 56), a feeder (RDH 10) capable of feeding originals having different sizes to an image reading position (column 5, lines 4 through 12), means for reading (optics 4) mixed originals for reading a plurality of originals collectively set in the feeder (column 5, lines 22 through 39, and column 40, lines 40 through 51), means for determining a size of an image corresponding to image data of each image stored in the memory (column 39, line 56 through column 40, line 6), and means for controlling, responsive to the means for determining, which permits the means for editing to edit an image when all images corresponding to the plurality of originals are uniform in size (column 39, line 56 through column 40, line 68) and otherwise prohibiting the means for editing from editing an image (column 39, line 56 through column 40, line 68, wherein the means for editing, being the magnification routine, is prohibited on documents which are not uniform in size with the selected size).

Regarding *claim 33*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a sensor (document sensor 37) for reading an image on an original (column 7, lines 8 through 48), a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data read by the sensor (column 18, lines 38 through 42, and column 40, lines 28 through 35), an image forming portion for using edited image data stored in the memory to print an image (magnified documents, column 40, lines 35 through 56), a stapler for stapling a plurality of sheets each bearing a formed image thereon (stapler unit 150, column 11, lines 10 through 21), a feeder (RDH 10) capable of feeding originals having different sizes to an image reading position (column 5, lines 4 through 12),

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means for reading (optics 4) mixed originals for reading a plurality of originals collectively set in the feeder (column 5, lines 22 through 39, and column 40, lines 40 through 51), means for determining a size of an image corresponding to image data of each image stored in the memory (column 39, line 56 through column 40, line 6), and means for controlling, responsive to the means for determining, which permits the stapler to operate when all images corresponding to the plurality of originals are uniform in size (column 40, lines 30 through 68) and otherwise prohibiting the stapler from operating (column 40, lines 30 through 68, wherein the stapler is prohibited from operating on documents which are not uniform in size with the selected size, until all of the documents are copied in one uniform size).

Regarding *claim 35*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data corresponding to a plurality of images (column 18, lines 38 through 42, and column 40, lines 28 through 35), a stapler for stapling a plurality of printed sheets (stapler unit 150, column 11, lines 10 through 21), and a controller which permits the stapler to operate when all of the plurality of printed sheets have images formed thereon from image data stored in the memory which are uniform in size (column 40, lines 30 through 68) and otherwise prohibiting the stapler from operating (column 40, lines 30 through 68, wherein the stapler is prohibited from operating on documents which are not uniform in size with the selected size, until all of the documents are copied in one uniform size).

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro *et al.*

(U.S. Patent Number Re. 34,460) in view of Oshita (U.S. Patent Number 5,343,306, cited in the Office action dated 8/29/00).

Regarding *claim 5*, Ishiguro discloses the apparatus discussed above in claim 4, but fails to specifically teach if the state decision controller determines a length of a frame of the image data. Oshita discloses an image processing device (facsimile machine, column 1, lines 46 through 53) operable in a plurality of modes of operation (transmitting or receiving modes), comprising a memory (page memory 102) for storing image data of a plurality of frames (column 3, lines 16 and 17, wherein a plurality of frames or pages of documents are stored in the page memory, see column 8, lines 3 through 17), a controller (line counter 107, column 3, lines 48 through 51) for determining, for each frame, a state of a frame of the image data (column 5, lines 26 through 33), an operation panel (manual input section 108) for selecting any of the plurality of modes of operation (column 4, lines 1 through 6), and a controller (controller 10, column 2, lines 32 through 40) for comparing the state of two frames, as determined by the state decision controller (column 5, lines 26 through 41, wherein the length of at least two sheets are compared to the currently loaded cut sheet length), and for automatically prohibiting selecting an inoperable mode (column 5, lines 42 through 49) of operation of the plurality of modes of

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operation through the operation panel based on the result of the comparison (column 5, line 64 through column 6, line 35, column 6, line 64 through column 7, line 20). Further, Oshita teaches that the state decision controller determines a length of a frame of the image data in a predetermined direction (column 3, lines 48 through 68). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Oshita's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Oshita's teachings, as the system's share cumulative features, being additive in nature.

13. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro *et al.* (U.S. Patent Number Re. 34,460) in view of Matsuo *et al.* (U.S. Patent Number 4,912,518).

Regarding **claim 15**, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches that the state decision controller determines whether the image data stored in the memory all have the same frame size (column 18, line 64 through column 19, line 7). However, Ishiguro fails to teach of the selection prohibiting controller prohibiting selecting a two-sided print mode through the operation panel when it is determined that the image data stored in the memory do not all have a same frame size, the two-sided print mode being provided for printing the image data of a plurality of frames on both sides of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15,

lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an two-side print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet (column 3, lines 45 through 50, column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

Regarding *claim 16*, Ishiguro discloses the apparatus discussed above in claim 13, and further teaches that the state decision controller determines whether the image data stored in the memory all have the same frame size (column 18, line 64 through column 19, line 7). However, Ishiguro fails to teach of the selection prohibiting controller prohibiting selecting an economy print mode through the operation panel when it is determined that the image data stored in the memory do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through

68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an economy print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet (column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

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14. **Claims 23 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Collard et al.* (U.S. Patent Number 5,825,988, cited in the Office action dated 8/29/00) in view of *Ishiguro et al.* (U.S. Patent Number Re. 34,460).

Regarding **claim 23**, Collard discloses an image forming apparatus operable in a plurality of print modes (see Figs. 6A and 6B, digital, 2-sided, and 1-sided modes), comprising a memory (central storage means 15, or memory disc 23) for storing a plurality of print jobs (column 5, lines 9 through 61), each print job containing image data of at least two frames (column 5, lines 20 through 29), a selector for selecting one of the plurality of print jobs stored in the memory (column 7, lines 18 through 27), a controller (control module 18) for determining, for each frame, a state of a frame of the image data contained in the print job selected by the print-job selector (column 7, lines 28 through 37), a printer (printing unit 3) for printing the image data contained in the print job selected by the print-job selector (column 4, lines 15 through 60), an operation panel (panel 19) for selecting any of the plurality of print modes (column 6, lines 10 through 65), and a controller (control unit 18) for selecting a print mode of the plurality of print modes through the operation panel based on the thus determined state of the image data contained in the print job selected by the print-job selector (column 4, line 61 through column 5, line 8, and column 7, lines 33 through 63).

However, Collard fails to teach of the controller for comparing the state between at least two frames, as determined by the state decision controller, and for automatically prohibiting selecting an inoperable print mode based on the result of the comparison. Ishiguro discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (see Fig. 18, column 12, line 37 through column 13, line 25) comprising a memory (RAM) for storing image data of a

plurality of frames (column 18, line 64 through column 19, line 1), a printer for reading the image data stored in the memory for each frame and for printing (column 20, lines 3 through 16), a controller (control circuit, seen in Fig. 19) for determining, for each frame, a state of a frame of the image data stored in the memory (being the size of the sheet, column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), an operation panel for selecting any of the plurality of print modes (see Figs. 16 through 18, column 12, line 37 through column 13, line 25, and column 14, lines 11 through 28), and a controller (control circuit, seen in Fig. 19) for comparing the state between at least two frames, as determined by the state decision controller (column 18, line 64 through column 19, line 7, wherein the sheet size S1 and Sx are compared), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 19, lines 2 through 7, and lines 39 through 44). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Ishiguro's teachings within Collard's system. Collard's system would easily be modified to include Ishiguro's teachings, since both systems share cumulative features, being additive in nature.

Regarding *claim 24*, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches of a finisher for stapling sheets printed by the printer (stapler 100 being part of sorter 40, see Figs. 1 and 2, column 7, lines 26 through 32, and column 11, lines 37 through 47), wherein a print job selected contains image data of a plurality of frames and the state decision controller determines whether the selected print job contains image data of a plurality of frames and the state decision controller determines whether the print job selected



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contains image data having a frame size different than a frame size of other image data contained in the selected print job (column 18, line 64 through column 19, line 1, wherein the size is determined for S1 and Sx, which are stored in the RAM), and wherein the selection prohibiting controller prohibits selecting a staple print mode through the operation panel when it is determined that the selected print job contains image data having a frame size different than a frame size of other image data contained in the selected print job (see abstract, column 3, lines 16 through 19, and column 18, line 64 through column 19, line 7, whereby the finishing mode is prohibited, thereby prohibiting the staple mode), with the staple print mode being provided so that the finisher provides a staple processing (column 19, lines 39 through 61). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Ishiguro's further teachings within Collard's system. Collard's system would easily be modified to include Ishiguro's teachings, since both systems share cumulative features, being additive in nature.

15. **Claims 25 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Collard *et al.* (U.S. Patent Number 5,825,988, cited in the Office action dated 8/29/00) in view of Ishiguro *et al.* (U.S. Patent Number Re. 34,460), and further in view of Matsuo *et al.* (U.S. Patent Number 4,912,518).

Regarding *claim 25*, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches that the state decision controller determines whether the image data contained in the selected image data all have the same frame size (column 18, line 64 through column 19, line 7). However, Collard and Ishiguro fail to teach of the selection

prohibiting controller prohibiting selecting an two-side print mode through the operation panel when it is determined that the image data contained in the selected print job do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting a two-side print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the two-side print mode being provided for printing the image data of a plurality of frames on both sides of a sheet (column 3, lines 45 through 50, column 21, lines 58 through 68, and column 23, lines 32 through 45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

Regarding *claim 26*, Collard and Ishiguro disclose the apparatus discussed above in claim 23, and Ishiguro further teaches that the state decision controller determines whether the image data contained in the selected image data all have the same frame size (column 18, line 64 through column 19, line 7). However, Collard and Ishiguro fail to teach of the selection prohibiting controller prohibiting selecting an economy print mode through the operation panel when it is determined that the image data contained in the selected print job do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet. Matsuo discloses an image forming apparatus (see Fig. 1) operable in a plurality of print modes (column 7, lines 53 through 68) comprising a printer for printing (column 6, lines 3 through 20), a controller for determining, for each frame, a state of a frame of the image data (column 6, line 23 through column 7, line 24), an operation panel for selecting any of the plurality of print modes (see Fig. 6, column 15, lines 1 through 34), and a controller for comparing the state between at least two frames, as determined by the state decision controller (column 23, lines 34 through 45), and for automatically prohibiting selection of an inoperable print mode of the plurality of print modes through the operation panel based on the result of the comparison (column 21, lines 58 through 68). Further, Matsuo teaches that that the state decision controller determines whether the image data all have the same frame size (column 21, lines 58 through 68) and the selection prohibiting controller prohibits selecting an economy print mode (column 14, lines 24 through 38) through the operation panel when it is determined that the image data do not all have a same frame size, the economy print mode being provided for printing the image data of a plurality of frames on one same side of a sheet (column 21, lines 58 through 68, and column 23, lines 32 through 45). Therefore, it would have been

obvious to a person of ordinary skill in the art at the time the invention was made to include Matsuo's teachings in Ishiguro's system. Ishiguro's system would easily be modified to include Matsuo's teachings, as the system's share cumulative features, being additive in nature.

16. **Claims 32 and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinada *et al.* (U.S. Patent Number 5,008,709) in view of Yoshida *et al.* (U.S. Patent Number 5,930,006, cited in the Office action dated 8/29/00).

Regarding *claim 32*, Shinada discloses the apparatus discussed above in claim 31, but fails to teach if the means for editing image edits an image in the manner suitable for providing two images for printing on a single side of a sheet. Yoshida discloses an image forming apparatus which includes a means for editing an image in the manner suitable for providing two images for printing on a single side of a sheet (column 10, lines 32 through 43, wherein  $N=2$ ). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Yoshida's teachings in Shinada's system. Shinada's system would become more versatile with the addition of Yoshida's teachings, as a user would have added options for a desired output format.

Regarding *claim 34*, Shinada discloses an image formation apparatus (see Fig. 1) comprising a memory (buffers, column 226-228, seen in Fig. 13A, and column 14, line 64 through column 15, line 9) for storing image data corresponding to a plurality of images (column 18, lines 38 through 42, and column 40, lines 28 through 35), means (priority magnification select subroutine) for editing image data from image data stored in the memory (column 34, lines 30 through 43), and means for controlling, which permits the means for editing to operate when

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image data stored in the memory are uniform in image size (column 39, line 56 through column 40, line 68) and otherwise prohibiting the means for editing from operating (column 39, line 56 through column 40, line 68, wherein the means for editing, being the magnification routine, is prohibited on documents which are not uniform in size with the selected size).

However, Shinada fails to teach if the means for editing edits in a manner suitable for providing two images on a single side of a sheet. Yoshida discloses an image formation apparatus comprising a memory (multiport image memory 304 within memory 30, see Fig. 5) for storing image data corresponding to a plurality of images (column 6, lines 47 through 51, wherein two pages are stored, and column 7, lines 25 through 28), means for editing image data from image data stored in the memory in a manner suitable for providing two images on a single side of a sheet (column 10, lines 32 through 43, wherein  $N=2$ ), and means for controlling, which permits the means for editing to operate and otherwise prohibiting the means for editing from operating (column 16, lines 17 through 55). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include Yoshida's teachings in Shinada's system. Shinada's system would become more versatile with the addition of Yoshida's teachings, as a user would have added options for a desired output format.

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*Conclusion*


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-5406 for regular communications and (703) 306-5406 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Joseph R. Pokrzywa  
Examiner  
Art Unit 2622

jrp  
April 5, 2001

  
EDWARD COLES  
SUPERVISORY PATENT EXAMINER  
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